

REMARKS

Claims 2-88 are pending in the application, with claims 2-7 and 53-58 being independent. Previously, claim 1 was canceled and claims 53-88 were withdrawn from consideration. By this reply, each of claims 2-7 has been amended to recite that the first electrode is not in direct contact with the organic compound layer. Support for this amendment may be found in the application at, for example, FIG.1E. No new matter has been introduced.

Claims 2-13, 35-40 and 47-52 have been rejected as being unpatentable over Urabe (U.S. Patent No. 6,614,174) in view of Yamazaki (U.S. Patent No. 6,583,471).

With respect to claim 2 and its dependent claims, applicant requests reconsideration and withdrawal of this rejection because neither Urabe, Yamazaki, nor any proper combination of the two describes or suggests a first electrode and an organic compound layer having the properties recited in claim 2 and connected to each other through a tunnel junction, as also recited in claim 2.

The Examiner relies on Urabe as showing a first electrode (M), a second insulating layer (15) formed on the first electrode, and an organic compound layer (10) formed on the second insulating layer. Recognizing that Urabe does not describe or suggest connecting the first electrode to the organic compound layer through a tunnel junction, the Examiner turns to Yamazaki, which describes, at col. 24, lines 11-15, using a thin gate insulating film 1500 between a floating gate electrode 1509 and a channel formation region 1507. The Examiner then argues that one of ordinary skill in the art would have been motivated to substitute the insulating layer of Yamazaki within the device of Urabe "because it more effectively erases the current image displayed by the device to make way for the subsequent image, thereby reducing any burn in of the image which reduces the clarity of the device over time." Applicant respectfully disagrees.

First, applicant has been unable to find the motivation recited by the Examiner in either Urabe or Yamazaki, and it is entirely unclear to applicant how Yamazaki's description of properties of a gate insulating film would have led one of ordinary skill in the art to replace Urabe's insulating film (15) with the film 1500 of Yamazaki. Second, even if one were to make

the replacement, a tunneling connection between the first electrode (M) and the organic compound layer (10) would not result. In particular, the organic compound layer (10) and the second insulating layer (15) are both formed on the anode (A), which is electrically connected to the electrode (M) through the contact hole (CON). As such, there is already a direct electrical connection between the organic compound layer (10) and the electrode (M) through the anode (A), which underlies the second insulating layer (15). Accordingly, the organic compound layer (10), including the small portion of the organic compound layer (10) that overlies the second insulating layer (15), would be at the same potential as the anode (A) and the electrode (M) that underlie the second insulating layer (15). As a result, neither a tunneling connection nor a tunneling current would be produced.

For the reasons presented above, the rejection of claim 2 and its dependent claims should be withdrawn.

Like claim 2, independent claim 5 recites an electrode and an organic compound layer that are connected to each other through a tunnel junction. Similarly to claim 2, independent claims 3 and 6 recite a first electrode and an organic compound layer that together form a tunnel junction, and independent claims 4 and 7 recite a first electrode and an organic compound layer arranged such that a tunnel current or a Fowler-Nordheim current flows through an insulating layer located between them. Accordingly, the rejection of claims 3-7 and their dependent claims should be withdrawn at least for the reasons presented above with respect to claim 2.

Dependent claims 14-34 and 41-46 have been rejected as being unpatentable over Urabe in view of Yamazaki and (1) Inukai (U.S. Patent No. 6,680,577) (claims 14-19), (2) Yano (U.S. Patent No. 6,793,962) (claims 20-25), (3) Segawa (U.S. Patent No. 6,492,778) (claims 26-34) or (4) Eida (U.S. Patent No. 6,633,121)(claims 41-46). Applicant requests reconsideration and withdrawal of these rejections because neither Inukai, Yano, Segawa, nor Eida remedies the failure of Urabe and Yamazaki to describe or suggest the subject matter of the independent claims.

Applicant submits that all claims are in condition for allowance.

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No fees are believed to be due. Please apply any charges or credits to deposit
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Respectfully submitted,

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